# ORAL ARGUMENT NOT YET SCHEDULED No. 22-1080 (and consolidated cases)

# IN THE UNITED STATES COURT OF APPEALS FOR THE DISTRICT OF COLUMBIA CIRCUIT

NATURAL RESOURCES DEFENSE COUNCIL,

Petitioner,

V.

NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION, ET AL.,

Respondents.

On Petition for Review of a Final Rule of the National Highway Traffic Safety Administration

# BRIEF OF THE ALLIANCE FOR AUTOMOTIVE INNOVATION AS AMICUS CURIAE IN SUPPORT OF THE STATE PETITIONERS AND PETITIONER AMERICAN FUEL & PETROCHEMICAL MANUFACTURERS

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#### **CORPORATE DISCLOSURE STATEMENT**

Pursuant to Federal Rule of Appellate Procedure 26.1 and D.C. Circuit Rules 15(c)(6) and 26.1, the Alliance for Automotive Innovation certifies that it is a not-for-profit trade association of motor vehicle manufacturers, original equipment suppliers, and technology and other automotive-related companies. The Alliance for Automotive Innovation operates for the purpose of promoting the general commercial, professional, legislative, and other common interests of its members. The Alliance for Automotive Innovation does not have any outstanding shares or debt securities in the hands of the public, nor does it have a parent company. No publicly held company has a 10 percent or greater ownership interest in the Alliance for Automotive Innovation.

#### CERTIFICATE REGARDING SEPARATE AMICUS BRIEF

Pursuant to D.C. Circuit Rule 29(d), the Alliance for Automotive Innovation certifies that a separate amicus brief is necessary to provide its unique perspective on the fuel economy standards promulgated by the National Highway Traffic Safety Administration. Members of *amicus curie* will be subject to the rule under review, and *amicus curie* is particularly well-suited to provide the Court with important context on the rule subject to the petition for review.

#### CERTIFICATE AS TO PARTIES, RULINGS UNDER REVIEW, AND RELATED CASES

Pursuant to D.C. Circuit Rules 26.1 and 28(a)(1), *amicus curiae* Alliance for Automotive Innovation certifies as follows:

#### A. Parties

On July 1, 2022, this Court entered an order consolidating case number 22-1080 with case numbers 22-1144 and 22-1145. Petitioners in No. 22-1144 are the State of Texas, the State of Arkansas, the State of Indiana, the Commonwealth of Kentucky, the State of Louisiana, the State of Mississippi, the State of Montana, the State of Nebraska, the State of Ohio, the State of South Carolina, and the State of Utah. Petitioner in No. 22-1145 is American Fuel & Petrochemical Manufacturers. Petitioner in No. 22-1080 is the Natural Resources Defense Council.

Respondents in No. 22-1144 are the National Highway Traffic Safety Administration ("NHTSA"), acting NHTSA Administrator Ann Carlson, the United States Department of Transportation, and Secretary of Transportation Pete Buttigieg. Respondent in No. 22-1145 is NHTSA. Respondents in No. 22-1080 are NHTSA, acting NHTSA Administrator Carlson, and Secretary Buttigieg.

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<sup>&</sup>lt;sup>1</sup> Upon the departure of Steven Cliff, Ann Carlson assumed the role of acting NHTSA administrator in September 2022. Under Federal Rule of Appellate Procedure 43(c)(2), Carlson is automatically substituted as a party in place of Cliff.

Intervenors in Nos. 22-1144 and 22-1145 are the City and County of Denver, the City of Los Angeles, the City of New York, the City of San Francisco, the Commonwealth of Massachusetts, the Commonwealth of Pennsylvania, the District of Columbia, the Environmental Defense Fund, the Environmental Law and Policy Center, the National Coalition for Advanced Transportation, the Natural Resources Defense Council, Public Citizen, the Sierra Club, the State of California, the State of Colorado, the State of Connecticut, the State of Delaware, the State of Hawaii, the State of Illinois, the State of Maine, the State of Maryland, the State of Michigan, the State of Minnesota, the State of Nevada, the State of New Jersey, the State of New Mexico, the State of New York, the State of North Carolina, the State of Oregon, the State of Vermont, the State of Washington, the State of Wisconsin, the Union of Concerned Scientists, and the Zero Emission Transportation Association. Intervenors in No. 22-1080 are the Clean Fuels Development Coalition; Diamond Alternative Energy, LLC; ICM, Inc.; the Illinois Corn Growers Association; the Kansas Corn Growers Association; the Kentucky Corn Growers Association; the Michigan Corn Growers Association; the Missouri Corn Growers Association; the Texas Corn Producers Association; the Minnesota Soybean Growers Association; Valero Renewable Fuels Co., LLC; and the Wisconsin Corn Growers Association.

The California Business Roundtable and the California Manufacturers & Technology Association filed an *amicus* brief in support of Petitioner American Fuel & Petrochemical Manufacturers and State Petitioners in Nos. 22-1144 and 22-1145.

#### **B.** Ruling Under Review

Petitioners seek review of NHTSA's final rule amending model year 2024–2026 fuel-economy standards. *See* Corporate Average Fuel Economy Standards for Model Years 2024–2026 Passenger Cars and Light Trucks, 87 Fed. Reg. 25710 (May 2, 2022).

#### C. Related Cases

The consolidated cases in this Court challenge the rule under review: *National Resources Defense Council v. NHTSA*, No. 22-1080; *Texas v. NHTSA*, No. 22-1144; and *American Fuel & Petrochemical Manufacturers v. NHTSA*, No. 22-1145.

Seven consolidated cases in this Court challenge a related rule promulgated by the Environmental Protection Agency: *Texas v. EPA*, No. 22-1031; *Competitive Enterprise Institute v. EPA*, No. 22-1032; *Illinois Soybean Ass'n. v. EPA*, No. 22-1033; *American Fuel & Petrochemical Manufacturers v. EPA*, No. 22-1034; *Arizona v. EPA*, No. 22-1035; *Clean Fuels Development Coalition v. EPA*, No. 22-1036; and *Energy Marketers of America v. EPA*, No. 22-1038.

/s/ David Fotouhi

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## **GLOSSARY OF ABBREVIATIONS**

CAFE Corporate Average Fuel Economy

DOE Department of Energy

EPA Environmental Protection Agency

EPCA Energy Policy and Conservation Act of 1975

GHG Greenhouse Gas

MY Model Year

NHTSA National Highway Traffic Safety Administration

OMB Office of Management and Budget

## **STATUTES AND REGULATIONS**

All applicable statutes and regulations are contained in the Brief of Petitioner American Fuel & Petrochemical Manufacturers and State Petitioners and the Brief of Petitioner Natural Resources Defense Council.

## RULE 29 STATEMENT OF IDENTITY, INTEREST, AUTHORITY, AUTHORSHIP, AND FINANCIAL CONTRIBUTION

The Alliance for Automotive Innovation ("Auto Innovators") is the singular, authoritative, and respected voice of the automotive industry. Focused on creating a safe and transformative path for sustainable industry growth, Auto Innovators represents the manufacturers producing nearly 98 percent of cars and light trucks sold in the United States. Its members also include original equipment suppliers, technology, and other automotive-related companies and trade associations. The organization is involved in regulatory and policy matters impacting the light-duty vehicle market across the country. Auto Innovators has an interest in the litigation because its members are directly regulated by the Corporate Average Fuel Economy ("CAFE") standards at issue here, see Corporate Average Fuel Economy Standards for Model Years 2024–2026 Passenger Cars and Light Trucks, 87 Fed. Reg. 25,710 (May 2, 2022) (the "CAFE Rule"), and the association can therefore offer a unique and important perspective to the Court.

The primary interest Auto Innovators' members seek to preserve in this litigation is a regulatory program that provides significant reductions in motor vehicle greenhouse gas ("GHG") emissions and improvement in fuel economy in a manner that helps smooth and incentivize the industry's transition to electric

vehicles.<sup>1</sup> Automakers have announced significant goals in decarbonization, and, in support of these goals, have plans to invest an estimated \$1.2 trillion globally by 2030 to develop and build new electric vehicles. *See* Paul Lienert, *Automakers to Double Spending on EVs, Batteries to \$1.2 Trillion by 2030*, Reuters (Oct. 25, 2022).<sup>2</sup> This transformative shift in the industry will require complementary efforts from both the public and private sectors—efforts like investing in electric vehicle charging and hydrogen fueling infrastructure, developing secure and reliable supply chains for the necessary materials for electric vehicle batteries, ensuring the resiliency of the electric grid to power electric vehicles, and creating consumer incentives that account for the fact that these vehicles are currently more expensive to acquire than their gasoline-powered counterparts.

This case and the parallel proceedings in *Texas v. EPA* (Case No. 22-1031) involve an important measure to support electric vehicles: a regulatory framework that supports investments in the development and production of these vehicles while ensuring continued improvements in motor vehicle fuel economy and GHG emissions. On December 30, 2021, the United States Environmental Protection Agency ("EPA") finalized revised standards that will reduce GHG emissions from

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<sup>&</sup>lt;sup>1</sup> Electric vehicles include battery-electric vehicles, plug-in hybrid electric vehicles, and hydrogen fuel cell vehicles.

<sup>&</sup>lt;sup>2</sup> Available at https://www.reuters.com/technology/exclusive-automakers-double-spending-evs-batteries-12-trillion-by-2030-2022-10-21/.

light duty vehicles by 28 percent between the 2023 model year ("MY") and MY2026, which would be an unprecedented achievement. See Revised 2023 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions Standards, 86 Fed. Reg. 74,434, 74,447 (Dec. 30, 2021) (the "GHG Rule"). After those standards were challenged, Auto Innovators intervened on the side of EPA to "support maintaining the GHG Rule in its current form," including the "critically important flexibilities that allow manufacturers to use a range of approaches to reduce air pollution while also adopting new technologies including electric vehicle technology." See Mot. to Intervene by Alliance for Automotive Innovation (ECF No. 1941280). While EPA has promulgated challenging standards, Auto Innovators supports the agency in Texas v. EPA because EPA has designed a regulatory framework that incentivizes electric vehicles, encourages overall fleet performance improvements, and is in line with the agency's authority. Auto Innovators' merits brief in support of EPA is due to be filed on February 28, 2023.

Auto Innovators seeks to file an *amicus curiae* brief in this challenge in support of the petitioners to explain to the Court that, in contrast to EPA's rulemaking, the fuel economy standards at issue here exceed the authority of the National Highway Traffic Safety Administration ("NHTSA") by accounting for considerations that are expressly prohibited by the governing statute, the Energy Policy and Conservation Act ("EPCA"), as amended, 49 U.S.C. §§ 32901, *et seq.* In

doing so, NHTSA contravened the intent of Congress by eliminating an important incentive to reduce petroleum consumption through the sale of alternative fuel vehicles.

Auto Innovators' *amicus* brief should not be viewed as contradicting our members' commitment to decarbonization and the transition to electric vehicles. To the contrary, our support of the EPA standards demonstrates that commitment. Moreover, finding in favor of the petitioners in this action will have no adverse environmental impact because the carbon emissions at issue are already regulated by EPA's GHG standards. A remand will, however, set the foundation for a more workable and sustainable CAFE program that is true to the statute and aligned with the auto industry's transition to electric vehicles.

Auto Innovators is authorized to file this brief pursuant to Circuit Rule 29(b), as all parties have consented to this *amicus* participation. No counsel for a party authored Auto Innovators' brief in whole or in part; no party or party's counsel contributed money to fund preparing or submitting the brief; and no person other than the *amicus curiae*, its members, or its counsel contributed money to fund preparing or submitting the brief.

#### **SUMMARY OF ARGUMENT**

The CAFE Rule violates a provision in EPCA that was added by Congress to provide a regulatory incentive for automakers to produce and sell alternative fuel vehicles. EPCA provides that when NHTSA amends fuel economy standards and determines the "maximum feasible fuel economy" for a given model year, it "may not consider the fuel economy" of battery-electric vehicles, and it "shall consider" plug-in hybrids to be "operated only on gasoline." 49 U.S.C. § 32902(h). These prohibitions are clear, broad, and categorical. They include no exceptions. According to the statute, the extent to which automakers are selling alternative fuel vehicles—whether according to their own market plans or to comply with separate regulations mandating their sale—cannot be considered in setting fuel economy standards.

NHTSA violated this prohibition because future automaker plans and requirements to sell increasing volumes of battery-electric vehicles and plug-in hybrids were foundational to the agency's analysis of what the maximum feasible fuel economy levels would be for the compliance years—MY2024-2026.<sup>3</sup> First, the agency assumed that automakers will comply with regulations promulgated by the California Air Resources Board requiring increased sales of electric vehicles (the

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<sup>&</sup>lt;sup>3</sup> NHTSA violated EPCA also with respect to fuel-cell vehicles; but, as explained below, that violation had a much less significant impact on the rulemaking. This brief therefore focuses on NHTSA's treatment of battery-electric vehicles and plugin hybrids.

"Zero-Emission Vehicle Mandate"), and that assumption formed part of the baseline for the "No-Action Alternative" and for all of the regulatory alternatives considered in the rulemaking. NHTSA's modeling analyses show that the high fuel economy of these vehicles and their increased sales volumes were indispensable to the agency's conclusion that the aggressive standards for MY2024-2026 are feasible. Second, although NHTSA purported to exclude the sale of incremental battery-electric vehicles beyond the baseline during MY2024-2026 as a compliance option, the modeling analyses included incremental battery-electric vehicles before and after the compliance years in direct response to the stringent standards. Finally, NHTSA's assessment of anticipated automaker compliance for MY2024-2026 failed to exclude the electric-drive operation of plug-in hybrids, thereby improperly inflating their fuel economy in the compliance modeling. Each of these actions by NHTSA in its determination of maximum feasible fuel economy violated 49 U.S.C. § 32902(h) and erased a significant and deliberate incentive under the statute.

## **INTRODUCTION**

## I. Summary of Current Rulemaking

The rulemaking at issue here is one of two actions by the current Administration to amend a rule adopted by the prior Administration called "The Safer Affordable Fuel-Efficient ('SAFE') Vehicles Rule for Model Years 2021–2026 Passenger Cars and Light Trucks," 85 Fed. Reg. 24,174 (Apr. 30, 2020) (the "SAFE

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Rule"). The SAFE Rule was promulgated jointly by EPA (which is responsible for establishing emission standards for new motor vehicles under the Clean Air Act section 202(a), 42 U.S.C. § 7521(a)) and NHTSA (which is responsible for establishing motor vehicle fuel economy standards under EPCA). In contrast to prior rulemakings, EPA and NHTSA in the instant case promulgated rules separately and on different timetables. EPA finalized its revised GHG emission standards on December 30, 2021. In a separate proceeding, NHTSA finalized its revised CAFE standards on May 2, 2022.

#### Auto Innovators' Intervention in Support of EPA's GHG Standards II.

The GHG Rule has been touted as "the most ambitious vehicle emissions standards for greenhouse gas emissions ever established for the light-duty vehicle sector in the United States." See EPA News Release, EPA Finalizes Greenhouse Gas Standards for Passenger Vehicles, Paving Way for a Zero-Emissions Future (Dec. 20, 2021), https://bit.ly/3wJFsTD. By MY2026, the GHG Rule is expected to decrease fleet-wide GHG emissions by more than 28 percent when compared to MY2022.4

The Clean Air Act is a flexible statute, and it grants EPA relatively broad discretion concerning the regulations it promulgates to reduce emissions from new

<sup>&</sup>lt;sup>4</sup> A vehicle manufacturer's compliance with the GHG Rule in a given model year is based on the sales-weighted average GHG emissions of the entire fleet of new vehicles that it produces and sells in the model year.

motor vehicles. In this and in past rulemakings, EPA has correctly recognized that increased sales of vehicles that run on alternative fuel, such as electricity or hydrogen, go a long way in reducing carbon emissions. For this reason, regulations under Section 202 of the Clean Air Act have long included regulatory incentives for such vehicles—for example, "multipliers," which allow an alternative-fuel vehicle to be counted more than once in an automaker's fleet for compliance purposes. See, e.g., 2017 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions and Corporate Average Fuel Economy Standards, 77 Fed. Reg. 62,624, 62,628 (Oct. 15, 2012) ("In order to provide temporary regulatory incentives to promote the penetration of certain 'game changing' advanced vehicle technologies into the light duty vehicle fleet, EPA is finalizing, as proposed, an incentive multiplier for CO2 emissions compliance purposes for [electric vehicles] sold in MYs 2017 through 2021.")

Consistent with the Clean Air Act and its past practice, EPA maintained some credit provisions for certain electric vehicles in the GHG Rule. These aspects of the GHG Rule are integral to achieving EPA's goal of reducing vehicle GHG emissions through the increased sale of electric vehicles. Auto Innovators intervened in support of the GHG Rule because, although meeting the standards will be extremely challenging for the industry, the GHG Rule and its flexibilities for electric vehicles fall within the scope of EPA's statutory authority and are consistent with the goal of

reducing carbon emissions from new vehicles though increased electrification—a goal that Auto Innovators' members share with the Administration.

# III. NHTSA's Final Fuel Economy Standards for Model Years 2024-2026 at Issue Here

The CAFE Rule will require increases of fuel economy at a rate of 8 percent year-over-year for MY2024 and MY2025, and 10 percent for MY2026. By MY2026, the standards will require an industry fleet-wide average of roughly 49 miles per gallon for cars and light trucks, combined. *See* 87 Fed. Reg. at 25,710. NHTSA assessed various alternatives in its rulemaking analyses. "Alternative 0" is the "No-Action Alternative" and is based on the preexisting standards set by the SAFE Rule. NHTSA then examined four other scenarios—Alternatives 1, 2, 2.5, and 3—and compared those to Alternative 0 for cost-benefit analyses. *Id.* at 25,725 n.14. Each of these five Alternatives begins with the 2020 model year and then simultaneously:

#### (1) Simulates compliance with:

- a. the applicable CAFE standards,
- b. the GHG Rule,
- c. the "Framework Agreement" certain automakers entered into with California concerning future GHG obligations, and
- d. California's Zero-Emission Vehicle Mandate; and

(2) Adds further fuel economy improvements if sufficiently cost-effective for buyers.

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See NHTSA, Technical Support Document: Final Rulemaking for Model Years 2024-2026 Light-Duty Vehicle Corporate Average Fuel Economy Standards 67 (Mar. 2022). Based on these analyses, NHTSA settled on Alternative 2.5. 87 Fed. Reg. at 25,721.

#### **ARGUMENT**

# I. EPCA Prohibits NHTSA from Considering the Fuel Economy of Electric Vehicles in Setting CAFE Standards

EPCA requires NHTSA to determine the "maximum feasible average fuel economy level" for a given model year, *see* 49 U.S.C. § 32902(c), (f),<sup>5</sup> but it outlines a number of factors that NHTSA both must consider and must not consider in setting the standards. One important limitation on NHTSA's rulemaking authority concerns vehicles that run on alternative fuels such as electricity. The statute provides:

In carrying out subsections (c) [amending CAFE standards], (f) [determining maximum feasible average fuel economy standards], and (g) [promulgating other amendments] of this section, the Secretary of Transportation—

(1) may not consider the fuel economy of dedicated automobiles;

<sup>&</sup>lt;sup>5</sup> "Maximum feasible fuel economy" is a legislative term of art and is determined by balancing four statutory criteria: "technological feasibility, economic practicability, the effect of other motor vehicle standards of the Government on fuel economy, and the need of the United States to conserve energy." 49 U.S.C. § 32902(f).

- (2) shall consider dual fueled automobiles to be operated only on gasoline or diesel fuel; and
- (3) may not consider, when prescribing a fuel economy standard, the trading, transferring, or availability of credits under section 32903

49 U.S.C. § 32902(h).

This brief addresses the first two of these prohibitions. Subsection (1) relates to "dedicated automobiles." A "[d]edicated automobile" is defined as "an automobile that operates only on alternative fuel." 49 U.S.C. § 32901(a)(8). "Alternative fuel" is defined to include electricity. *Id.* § 32901(a)(1)(J). A battery-electric vehicle is therefore a "dedicated automobile" within the meaning of EPCA, and NHTSA is therefore expressly prohibited from considering the fuel economy of battery-electric vehicles in determining the maximum feasible average fuel economy level or in amending CAFE standards. *See id.* § 32902(h).

Subsection (2) relates to "dual fueled automobiles." A "[d]ual fueled automobile" is defined as an automobile that "is capable of operating on alternative fuel and on gasoline," and (for a passenger automobile) that meets or exceeds the "minimum driving range" established by NHTSA regulation. 49 U.S.C. § 32901(a)(9). The current "minimum driving range" for a passenger automobile is 7.5 miles on its nominal storage capacity of electricity when operated on the EPA urban test cycle and 10.2 miles when operated on the EPA highway test cycle. *See* 49 C.F.R. § 538.5(b). Most plug-in hybrids sold today qualify as dual fuel vehicles.

Therefore, in setting fuel economy standards, NHTSA cannot consider the electricdrive operation of these plug-in hybrids and must assume that they run only on gasoline.

# II. Congress Included These Prohibitions as a Statutory Incentive to Produce and Sell Alternative Fuel Vehicles

The prohibitions set forth in 49 U.S.C. § 32902(h)(1) and (2) serve an important policy goal identified by Congress—namely, to provide a statutory incentive for the research, development, and sale of alternative fuel vehicles like electric vehicles. It accomplishes this by allowing alternative fuel vehicles to be counted for compliance purposes but prohibiting NHTSA from including them in standard setting. For instance, 49 U.S.C. § 32904(a)(2) sets forth a requirement that NHTSA determine the fuel economy of electric vehicles based on equivalent petroleum-based fuel economy values determined by the Department of Energy according to certain statutory criteria. Another provision in EPCA, 49 U.S.C. § 32905 (entitled "Manufacturing incentives for alternative fuel automobiles"), includes additional provisions designed to enhance the imputed fuel economy of alternative fuel vehicles. Based on these criteria, electric vehicles are attributed fuel

economy values greatly in excess of their gasoline-powered counterparts,<sup>6</sup> and thus can play an important role in an automaker's compliance. At the same time, however, EPCA prohibits NHTSA from considering the fuel economy of battery-electric vehicles and the electric-drive operation of plug-in hybrids in setting CAFE standards. *See supra* Argument § I.

This framework is the result of a deliberate policy choice by Congress. This exclusion first appeared in the Alternative Motor Fuels Act of 1988, Pub. L. No. 100-494, 102 Stat. 2441 (1988), but was limited to methanol, as it was the predominant alternative fuel at the time. The statute amended Section 502(e) of EPCA to provide that, in determining maximum feasible fuel economy, "the Secretary shall not consider the fuel economy of alcohol powered automobiles or natural gas-powered automobiles." *Id.* at 2452. The bill's main sponsor, Representative John Dingell, explained the intent of the amendment as follows:

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<sup>&</sup>lt;sup>6</sup> For instance, the 2020 Chevrolet Bolt EV has a combined label fuel economy value of 118 miles-per-gallon equivalent, while Chevrolet's highest-fuel-economy gasoline-powered car, the Spark, is rated at 33 miles per gallon. *See* U.S. Dep't of Energy, Office of Energy Efficiency & Renewable Energy, *Compare Side-by-Side*, bit.ly/3FaqTMH. Note, however, that for CAFE compliance purposes, the 2020 Bolt is rated at 408.9 miles-per-gallon equivalent and the Spark at 45.4 miles per gallon. *See* NHTSA Central Analysis, Output, Reports, Vehicle Report, *available at* bit.ly/3UbpE3T (the "CAFE Modeling File").

134 Cong. Rec. H8089-02 (daily ed. Sept. 23, 1988) (emphasis added). As NHTSA later explained, Congress sought to ensure that "incentive[s] [were] not subsumed within higher CAFE standards." *See* Automotive Fuel Economy Manufacturing Incentives for Alternative Fueled Vehicles, 69 Fed. Reg. 7,689, 7,699 (Feb. 19, 2004).

This exclusion was subsequently expanded to include electric vehicles in the Energy Policy Act of 1992. *See* Pub. L. No. 102-486, § 403, 106 Stat. 2,776, 2,876 (1992). In the Conference Report on the 1992 Act, Congress supported this amendment by pointing to the "major investments [needed] in new production plants for alternative fuels and in networks of stations for alternative fuels," as well as "in new cars or engines or converting existing vehicles." H.R. Rep. No. 102-474(V), at 34 (1992). In the face of these market uncertainties, Congress intended to encourage investments in alternative fuel vehicles like electric vehicles by excluding them from the calculation of a maximum feasible fuel economy.

This framework is very different from EPA's. Under the Clean Air Act, EPA has the discretion to account for increased sales of electric vehicles and to craft its

regulatory program to provide the appropriate incentive for these vehicles. EPCA, in contrast, is more proscriptive, and it expressly directs NHTSA in how it should treat alternative fuel vehicles in its rulemaking. Congress designed EPCA to provide an enticement for the development of these vehicles, not to act as a prod.

## III. NHTSA Violated EPCA by Considering the Fuel Economy of Battery-Electric Vehicles and the Electric Drive Operation of Plug-In Hybrids in Setting the MY2024-2026 CAFE Standards

In light of the clear and categorical prohibition in 49 U.S.C. § 32902(h), the fundamental question presented here is simple: in amending the CAFE standards and determining maximum feasible fuel economy, did NHTSA "consider the fuel economy" of battery-electric vehicles and the electric-drive operation of plug-in hybrids? A careful review of the record demonstrates that NHTSA did so—in violation of the statute—and that these violations were an indispensable element of the standards that NHTSA adopted in the CAFE Rule.

#### A. NHTSA Improperly Considered the Fuel Economy of Battery-Electric Vehicles

NHTSA considered the fuel economy of battery-electric vehicles in determining the maximum feasible fuel economy levels in two ways. First, NHTSA included automakers' MY2020 battery-electric vehicle volumes (which remain in the fleet for every subsequent model year) *and* the additional battery-electric vehicles that are necessary to comply with California's Zero-Emission Vehicle Mandate in the baseline for the "No-Action Alternative" and for all other

Alternatives considered. Second, incremental battery-electric vehicles over and above the baseline were added to automakers' fleets in the years immediately preceding and following the compliance years (MY2024-2026) in response to the standards. Each of these considerations of battery-electric vehicles and their fuel economy in the standard setting amounted to independent violations of EPCA.<sup>7</sup>

# 1. NHTSA Considered the Fuel Economy of Battery-Electric Vehicles in the CAFE Rule's Baseline

As part of its determination of maximum feasible fuel economy levels for the compliance years, NHTSA determined a "baseline" that informs the "No-Action alternative" (i.e., a demonstration of what would happen if NHTSA made no changes to its fuel economy standards, *see* 40 C.F.R. § 1502.14(c)), and informs all of the action alternatives NHTSA assessed in its standard-setting analysis. This baseline is integral to NHTSA's determination of maximum feasible fuel economy and is included as an underlying assumption in each of the analyzed action alternatives, including Alternative 2.5, which was selected as maximum feasible. Any significant change to the baseline would result in a different determination of maximum feasible fuel economy for the compliance years, and accordingly, any improper assumptions contained in NHTSA's baseline would render any results of the same equally erroneous.

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<sup>&</sup>lt;sup>7</sup> NHTSA also included existing 2020 sales of fuel-cell vehicles in the baseline, but they played a *de minimus* role in the rulemaking and are not addressed in this brief.

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In determining the baseline, NHTSA began with an assessment of battery-electric vehicle sales in MY2020. *See* 87 Fed. Reg. at 25,810. NHTSA then assumed that, going forward, automakers would comply with California's Zero-Emission Vehicle Mandate, which requires automakers to achieve certain sales percentages of electric vehicles in each model year, and which has been adopted by a number of other states under Section 177 of the Clean Air Act (42 U.S.C. § 7507).8 *See* 87 Fed. Reg. at 25,744. NHTSA then added the incremental battery-electric vehicle sales in response to the California Zero-Emission Vehicle Mandate to the 2020 battery-electric vehicle sales. Those battery-electric vehicles, *and the fuel economy of those vehicles*, are included in the baseline NHTSA used to determine maximum feasible fuel economy levels for MY2024-2026.

The agency's modeling files show how NHTSA considered the fuel economy of battery-electric vehicles in the baseline and how the baseline is indispensable to its standard setting. NHTSA analyzed potential CAFE standards based on the outputs of the CAFE Compliance and Effects Modeling System (the "CAFE Model"). The outputs of the CAFE Model include the "Vehicles Report," which "[c]ontains disaggregate vehicle-level summary of compliance model results, providing a

<sup>&</sup>lt;sup>8</sup> The California Air Resources Board just adopted amendments to its Zero-Emission Vehicle program that requires each automaker's zero-emission vehicle sales to increase each year, from 35 percent in MY2026 eventually to 100 percent in MY2035. *See* Cal. Code Regs. tit. 13 § 1964.4(c)(1)(B).

detailed view of the final state of each vehicle examined by the model, for each model year and scenario analyzed." See NHTSA, CAFE Model Documentation 219 (Apr. 2022). One of the fields in the Vehicles Report is "FE Compliance," which is a "[v]ehicle's overall fuel economy rating in a specific model year, taking into account the effect of technology additions made by the modeling system, adjusted for improvements in air conditioning and off-cycle credits . . . . This value is used for compliance purposes." Id. at 256. The outputs of the CAFE Model are available online and are part of the administrative record.<sup>9</sup> For this discussion, we present modelling data for Alternative 2.5 (the Alternative selected as the final standards); there is similar data for Alternatives 0 (the "No-Action Alternative"), 1, 2, and 3 in the administrative record. In MY2024 (the first compliance year), the model includes 293 battery-electric vehicles, and the minimum fuel economy of those batteryelectric vehicles is 165.7 miles per gallon, <sup>10</sup> the maximum is 529.8 miles per

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<sup>&</sup>lt;sup>9</sup> See CAFE Modeling File, supra note 6.

<sup>&</sup>lt;sup>10</sup> The fuel economy ratings of electric vehicles are determined using a "petroleum equivalency factor" established by the Department of Energy based on factors specified in 49 U.S.C. § 32904(a)(2)(B). *See also* 87 Fed. Reg. at 25,985. DOE is currently considering a petition that seeks a significant reduction in the petroleum equivalency factor, which would significantly reduce the imputed fuel economy of an electric vehicle. Because the consideration of BEVs in the CAFE Rule is based on the current petroleum equivalency factor, any change to it would materially affect manufacturers' ability to comply with the fuel economy standard.

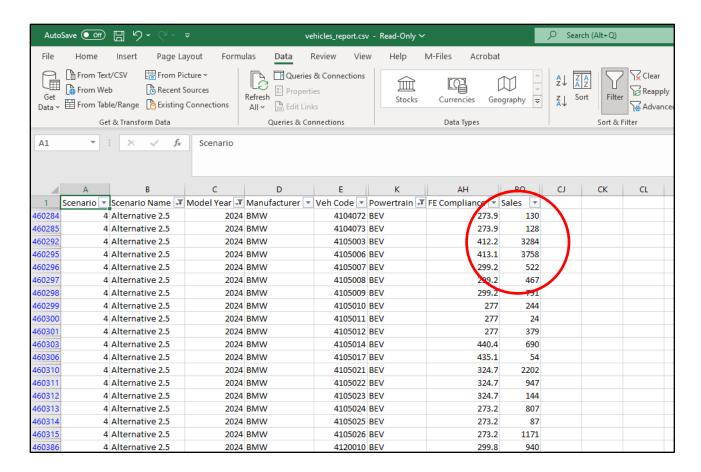
gallon,<sup>11</sup> and the projected sales-weighted average fuel economy of those battery-electric vehicles is 370.1 miles per gallon.<sup>12</sup> There are similar data in the model for all years impacted by the rulemaking. By way of a demonstrative, below is a screenshot of the model output files referenced above showing the relevant fields for some of the battery-electric vehicle models and variations of those models from BMW:<sup>13</sup>

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<sup>&</sup>lt;sup>11</sup> See CAFE Modeling File, supra note 6, at Central Analysis.zip\Central Analysis\output\ref\reports-csv\vehicles\_report.csv, Scenario Name = Alternative 2.5, "Powertrain" = BEV, "FE Compliance" field.

<sup>&</sup>lt;sup>12</sup> Calculated by Auto Innovators from the "FE Compliance" and "Sales" fields in the file referenced, *supra* note 6.

<sup>&</sup>lt;sup>13</sup> CAFE Modeling File, *supra* note 6, at Central Analysis\Output\ref\reports-csv\vehicle\_reports. Non-pertinent rows and columns were hidden for ease of viewing, and the red circle was added to direct the Court's attention to the relevant data.



The column headed "FE Compliance" is the fuel economy of the battery-electric vehicles used by NHTSA for compliance purposes in the CAFE Model. By way of example, the model variation assigned "Vehicle Code" 4105003 has an imputed fuel economy of 412.2 miles per gallon and projected sales of 3,284 units in MY2024.

These battery-electric vehicles and their fuel economy values were included in NHTSA's baseline fleet for all of the Alternatives, and the baseline was a foundational pillar upon which NHTSA based its determination of maximum feasible fuel economy. Put differently, any significant change in the baseline—for instance, if the baseline included *zero* battery-electric vehicles in MY2024-2026—would necessarily result in a different determination of maximum feasible fuel

economy for the compliance years. Therefore, because NHTSA considered the fuel economy of battery-electric vehicles in the baseline, and because the baseline is foundational to NHTSA's determination of maximum feasible fuel economy, it necessarily follows that NHTSA considered the fuel economy of battery-electric vehicles for its determination of maximum feasible fuel economy for MY2024-2026.

In response to comments that identified this legal flaw, NHTSA argued that it is appropriate to consider the fuel economy of battery-electric vehicles in the baseline so long as it "withhold[s] [battery-electric vehicle] technology as a model option during the rulemaking timeframe [i.e., MY2024-2026]," and that in doing so, the agency "give[s] meaningful effect to the 49 U.S.C. § 32902(h) prohibition." 87 Fed. Reg. at 25,899. NHTSA's justification fails for two reasons.

First, it reads the absolute prohibition in § 32902(h) too narrowly. The statute does not contain an exception allowing NHTSA to consider the fuel economy of battery-electric vehicles in the baseline fleet. To the contrary, the prohibition is categorical: "In carrying out subsections (c) [and] (f)"—i.e., amending fuel economy standards and determining maximum feasible average fuel economy—NHTSA "may not consider the fuel economy of dedicated automobiles" for any purpose

whatsoever.<sup>14</sup> The statutory prohibition is unambiguous, so NHTSA had no discretion to "give meaningful effect" to the prohibition in 49 U.S.C. § 32902(h)(1) by flouting that prohibition when determining the baseline. But even if there were some ambiguity in the statute on this point (and there is not), it is cleared up by the legislative history quoted above. The prohibition found in 49 U.S.C. § 32902(h)(1) is intended to prevent NHTSA from "setting the CAFE standard for cars or trucks at a level that assumes a certain penetration of alternative fueled vehicles," and thereby erasing the compliance incentive provided under the statute. *See supra* Argument § II. But that is precisely what NHTSA did here.<sup>15</sup> While it may seem counterintuitive that NHTSA must ignore battery-electric vehicles in the real-world fleet, that is what the statute commands, and the legislative history explains why.

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<sup>&</sup>lt;sup>14</sup> NHTSA further argued that "including state [Zero-Emission Vehicle] mandates in the regulatory baseline for this final rule is consistent with guidance in OMB Circular A–4 directing agencies to develop analytical baselines that are as accurate as possible regarding the state of the world in the absence of the regulatory action being evaluated." 87 Fed. Reg. at 25,744. But an OMB Circular does not trump a clear statutory requirement such as 49 U.S.C. § 32902(h)(1). See Chevron U.S.A. v. Nat. Res. Def. Council, 467 U.S. 837, 843 n.9 (1984) ("[Courts] must reject administrative constructions which are contrary to clear congressional intent.").

<sup>&</sup>lt;sup>15</sup> NHTSA similarly tried to excuse its inclusion of battery-electric vehicles by pointing out that "[t]he baseline is not itself the decision on what standards are maximum feasible." 87 Fed. Reg. at 25,899. This again reads the prohibition too narrowly. The agency violates Section 32902(h)(1) if it "considers the fuel economy" of battery-electric vehicles in its determination of maximum feasible fuel economy. Because setting the baseline is key part of this decision, and because the fuel economy of battery-electric vehicles were a key part of the baseline, it follows that NHTSA violated Section 32902(h)(1).

Second, NHTSA admitted in the preamble that the industry's ability to achieve the aggressive standards for MY2024-2026 rests on the assumption that its baseline—that is, automaker compliance with California's Zero-Emission Vehicle Mandate—will actually come to pass. In response to a comment that automakers will have to produce *more* battery-electric vehicles in order to comply with the CAFE rule, NHTSA stated that the "standards are maximum feasible without electrification *beyond what is already expected in the baseline*." 87 Fed. Reg. at 25,996 (emphasis added). The logical converse is that if automakers fail to achieve those battery-electric vehicle sales volumes in the baseline, then it may not be possible to meet the standards' requirements.<sup>16</sup>

2. NHTSA Added Battery-Electric Vehicle Sales in the Years Preceding and Following the Compliance Years in Response to the Standards

NHTSA's standard-setting analyses also project that automakers will sell incremental battery-electric vehicles over the baseline in MY2023—the model year immediately preceding the first year covered by the standards—in order to comply with the standards in MY2024-2026. As NHTSA explained in the preamble:

<sup>&</sup>lt;sup>16</sup> It is worth noting that California has often needed to relax its Zero-Emission Vehicle requirements, recognizing that its regulations were overly ambitions. For example, in 1998 and again in 2001, the California Air Resources Board amended the regulation to allow automakers to meet the requirements using sales of certain conventional gas-powered vehicles through 2017. *See* California Air Resources Board, *Zero-Emission Vehicle Program*, bit.ly/3OPz8Rr.

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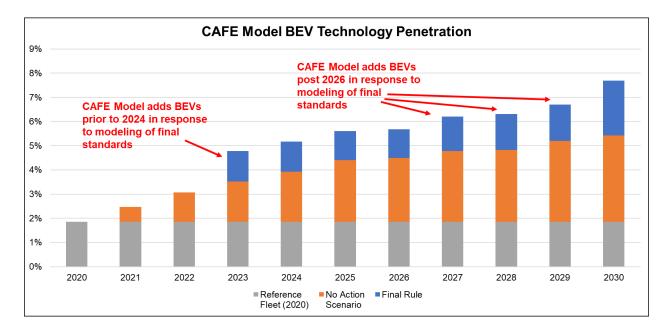
"Changes are shown to occur in MY2023 even though NHTSA is not explicitly proposing to regulate that model year because NHTSA anticipates that manufacturers could potentially make changes as early as that model year to affect future compliance positions (i.e., multi-year planning) for the model years being regulated." 87 Fed. Reg at 25,916. This results in more battery-electric vehicles being added to the fleet in MY2023, and these vehicles are then carried forward into the standard-setting years for compliance purposes.

The impact of this choice can be observed in the model's technology selection (Cafe Modeling File, Technology Utilization Report) output file. The battery-electric vehicle technology utilization in Alternative 0 (the "No-Action Alternative") is 3.5 percent in MY2023. In the analysis reflecting Alternative 2.5 (the final standards adopted by NHTSA), MY2023 has a battery-electric vehicle technology utilization of 4.8 percent. In other words, the model adds additional battery-electric vehicles in MY2023 in response to the modeled final standards, and those additional batteryelectric vehicles are used for compliance purposes in the standard-setting years.

Additionally, NHTSA's analyses add battery-electric vehicles to the fleet after the compliance years—that is, between MY2027-2029. According to the preamble: "Effects of standards on the fleet out to MY2029 are considered to account for years the regulation covers, and years of potential carry back credit use." See 87 Fed. Reg. at 25,782 n.185. Thus, NHTSA's model assumes increased battery-electric vehicle sales after MY2026 on account of the standards, and that automakers will use them for compliance in MY2024 through MY2026. The impacts of these considerations

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on compliance with the standards are shown in the following graph:<sup>17</sup>



This is yet another example of NHTSA's unsupported and counter-textual reading of Section 32902(h)(h)(1). The agency "interprets 32902(h) as not prohibiting application by the CAFE Model of vehicles such as electric vehicles in model years outside the rulemaking time frame, for example in MYs 2027 and beyond in this analysis, because those years are not the ones for which we are currently determining CAFE standards." 87 Fed. Reg. at 25,995; *see also id.* at 25,899 (arguing that NHTSA complied with Section 32902(h)(1) "by not allowing the CAFE Model to rely on [battery-electric vehicle] (or other dedicated alternative

<sup>&</sup>lt;sup>17</sup> Data from CAFE Modeling File, *supra* note 6, at Central Analysis.zip\Central Analysis\output\ref\reports csv\technology\_utilization\_report.csv.

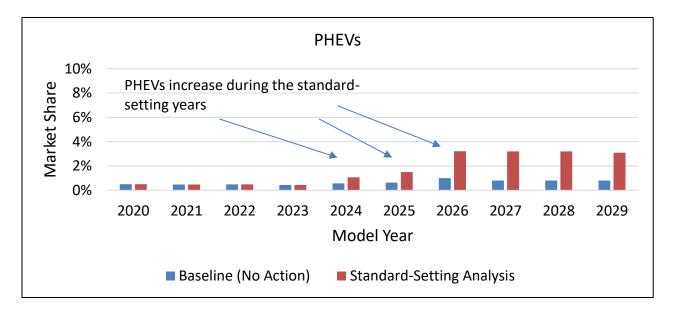
fuel) technology during the rulemaking time frame"). NHTSA offers no authority whatsoever for the proposition that—despite the clear prohibition to the contrary—it *can* consider the fuel economy of battery-electric vehicles so long as it does so outside of the rulemaking period. No such exception can be found in the statute.

## B. NHTSA Failed to Consider Plug-In Hybrids as Operating Only on Gasoline, As Required Under EPCA

NHTSA committed a further violation of EPCA through its failure to exclude the electric-drive operation of plug-in hybrids in its standard-setting analyses. The CAFE Model utilized by NHTSA to demonstrate the feasibility of the final standards included the electric-drive portion of plug-in hybrids in MY2024-2026. NHTSA admitted as much in the preamble: "For MYs 2024-2026, the CAFE Model estimates that a significant penetration of strong hybrids and plug-in hybrids is required to meet the analyzed alternatives." 87 Fed. Reg. at 25,808. This is an important admission because, absent its electric-only operation, a plug-in hybrid's fuel economy would not differ substantially from a conventional gas-powered vehicle. Thus, NHTSA concedes that the electric operation is needed to meet the standards.

NHTSA's failure to consider plug-in hybrids as being "operated only on gasoline" is apparent in the model settings used for the rulemaking analysis. The model has a setting for dual-fueled vehicles such as plug-in hybrids called "Multi-Fuel." In the scenario input file for the standard-setting analysis, NHTSA set the

"Multi-Fuel" setting to a value of "1," which means "for Gasoline/Electricity vehicles [plug-in hybrids], both fuel economy values are considered." *See* CAFE Model Documentation at 213. In other words, the model assumes that plug-in hybrids are running on both gasoline and electricity, and this assumption supports the determination of maximum feasible fuel economy. Consequently, the model anticipates a significant increase in the number of plug-in hybrids sold in response to the standards, as shown in the following graph: 19



This increase is because of the high fuel economy of plug-in hybrids, which comes from their electric drive system. Hence, NHTSA has failed to assume that plug-in

<sup>&</sup>lt;sup>18</sup> See CAFE Modeling File, supra note 6, at Central Analysis\input\scenarios\_ref.

Data from CAFE Modeling File, supra note 6, at Central Analysis\output\ref\reports-csv\technology\_utilization\_report.csv.

hybrids operate only on gasoline in determining maximum feasible fuel economy, in violation of 49 U.S.C. § 32902(h)(2).

In its response to comments, NHTSA does not deny that it included the electric-drive portion of plug-in hybrids, but instead "consider[ed] the full calculated fuel economy of dual-fueled vehicles" in its standard setting. 87 Fed. Reg. at 25,996. It justified doing so by pointing out that it has "held [that] interpretation since the 2012 final rule." *Id.* Of course, past violations of a statute by an executive agency do not give the agency license to continue violating the statute. Although courts typically defer to longstanding agency interpretations, "a reviewing court should not defer to an agency position which is contrary to an intent of Congress expressed in unambiguous terms." *Estate of Cowart v. Nicklos Drilling Co.*, 505 U.S. 469, 476 (1992); *see also Brown v. Gardner*, 513 U.S. 115, 122 (1994) (age of an agency regulation "is no antidote to clear inconsistency with a statute").

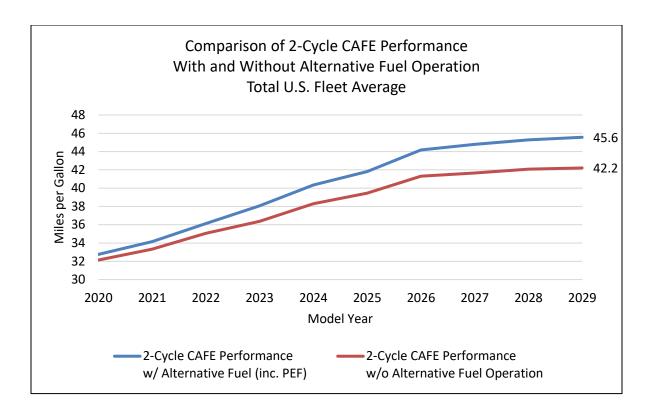
# C. NHTSA's Inclusion of Battery-Electric Vehicles and Plug-In Hybrids in Its Standard Setting Has a Significant Impact on CAFE Performance

NHTSA attempts to excuse its violations of the statute by arguing that each of them individually would not have had a significant impact on the outcome of the rulemaking in terms of the cost of compliance. *See*, *e.g.*, 87 Fed. Reg. at 25,996 (claiming that even if NHTSA had excluded the electric-drive portion of plug-in hybrids, "per-vehicle costs are estimated to drop from \$1,087 to \$1,072" and "results"

in MY2029 would be extremely close to results in the main standard-setting analysis"). However, Auto Innovators' analyses show that correcting for all of the identified violations does in fact have a significant impact on the fuel economy performance of the compliance fleet.

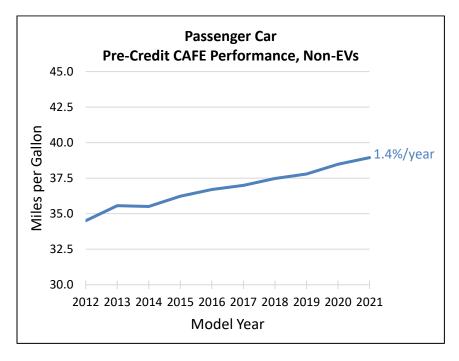
Using the "Vehicles Report" output file for Alternative 2.5 (the final standards), Auto Innovators calculated what the industry production-weighted average fleet fuel economy performance would have been without the fuel economy of battery-electric vehicles and the electric-drive portion of plug-in hybrids, both of which were improperly considered by NHTSA. This was accomplished by assuming zero sales of battery-electric vehicles, and by replacing the combined fuel economy values for plug-in hybrids with their fuel economy assuming only the gasolinepowered operation. Correcting for these errors results in a 3.4 miles-per-gallon difference in fuel economy, as shown in the following graph:<sup>20</sup>

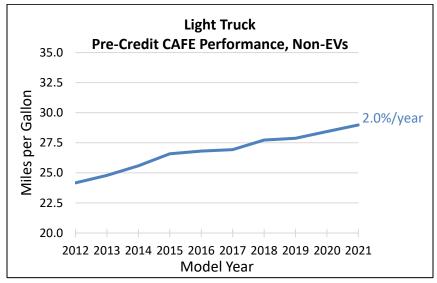
<sup>&</sup>lt;sup>20</sup> Data from CAFE Modeling File, supra note 6, at Central Analysis.zip\Central Analysis\output\ref\reports-csv\vehicles report.csv.



Finally, and most intuitively, the stringency of the CAFE Rule—which requires unprecedented fuel economy improvements of 8 percent in MY2024 and MY2025, and 10 percent in MY2026—demonstrates that the fuel economy of battery-electric vehicles and the electric-drive portion of plug-in hybrids were a critical component of NHTSA's determination of maximum feasible fuel economy levels. Internal combustion engines alone do not improve their efficiency at such a rapid pace. For example, between MY2012 and 2021, the fuel economy performance of non-electric vehicle passenger cars improved on average by 1.4 percent per year,

and the fuel economy performance of non-electric vehicle light trucks improved on average by 2 percent per year, as shown on the following graphs:<sup>21</sup>





<sup>&</sup>lt;sup>21</sup> See IHS Markit, Model Years 2012 to 2021 Baseline Study (2021).

NHTSA has determined that the steep fuel economy improvements required in the CAFE Rule are technologically feasible and economically practicable only because of (a) the high penetration of battery-electric vehicles and plug-in hybrids in the light duty fleet before, during, and after the standard-setting years, and (b) the high fuel economy values attributed to those vehicles. If, hypothetically, battery-electric vehicles were to have an imputed fuel economy values of (say) 30 miles per gallon, then it would not have been possible for NHTSA to have supported the CAFE Rule.

#### **CONCLUSION**

For the foregoing reasons, this Court should find that NHTSA violated EPCA by considering the fuel economy of battery-electric vehicles and by failing to consider plug-in hybrids as being operated only on gasoline when determining maximum feasible fuel economy and amending the CAFE standards for MY2024-2026, and should vacate the CAFE Rule.

Dated: December 1, 2022 Respectfully submitted,

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#### **CERTIFICATE OF COMPLIANCE**

Pursuant to Federal Rule of Appellate Procedure 32(g)(1), the undersigned certifies that this brief complies with the applicable typeface, type style, and type-volume limitations. This brief was prepared using a proportionally spaced type (Times New Roman, 14 point). Exclusive of the portions exempted by Federal Rule of Appellate Procedure 32(f) and D.C. Circuit Rule 32(e)(1), this brief contains 6,473 words. This certificate was prepared in reliance on the word-count function of the word-processing system used to prepare this brief.

/s/	David	Fotouhi	

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### **CERTIFICATE OF SERVICE**

I certify that on this 1st day of December 2022, I caused a true and correct copy of the foregoing brief to be served via electronic mail upon all counsel of record by operation of the Court's ECF system.